Fig. 1A PRIOR ART

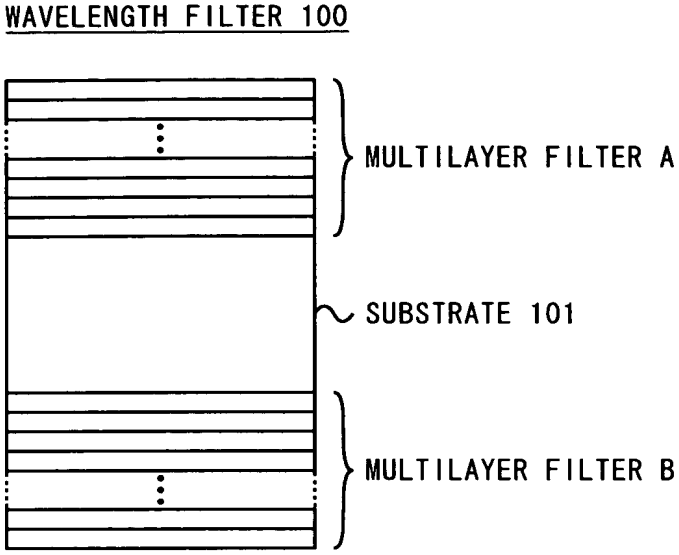


Fig. 1B PRIOR ART

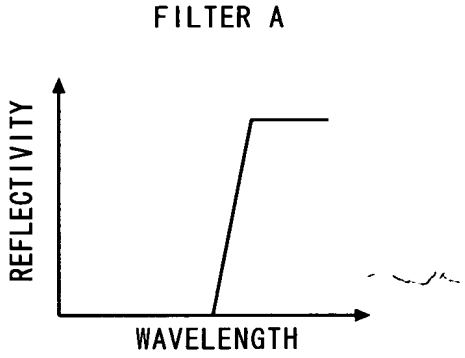


Fig. 1C PRIOR ART

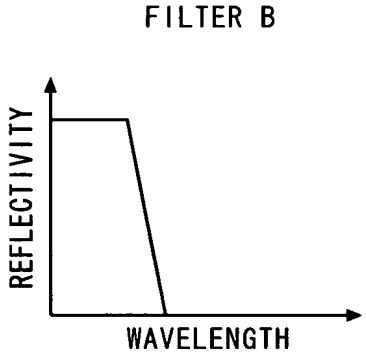


Fig. 1D PRIOR ART

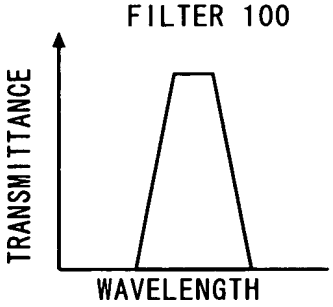


Fig. 2

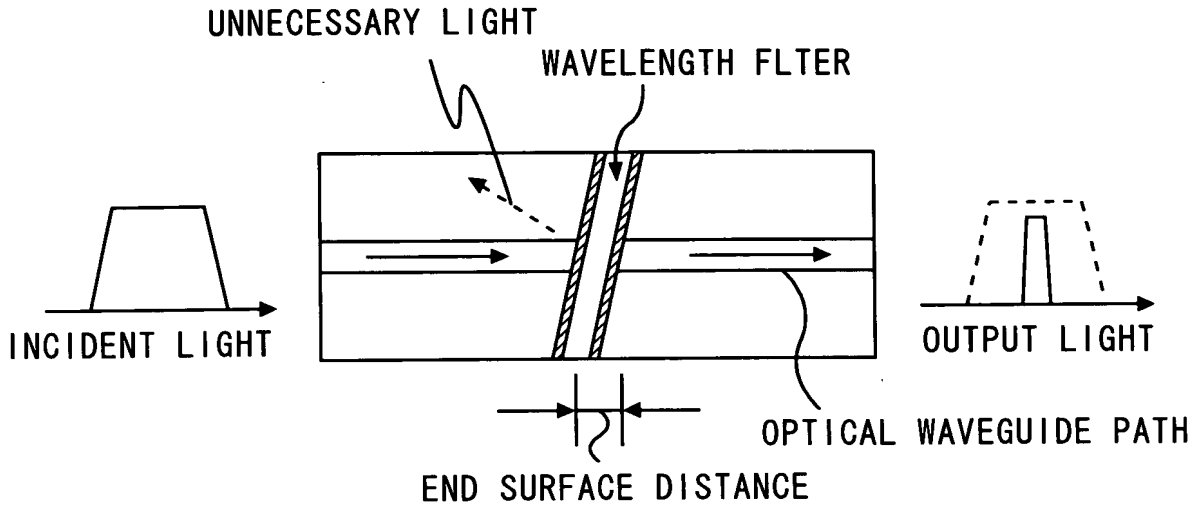
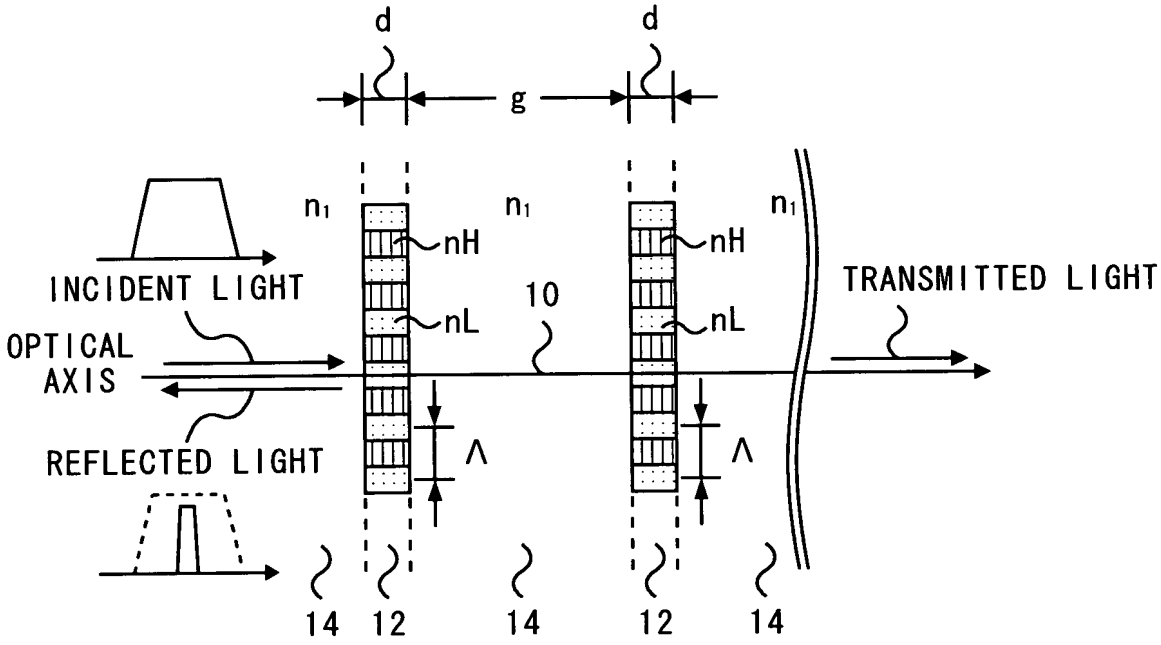


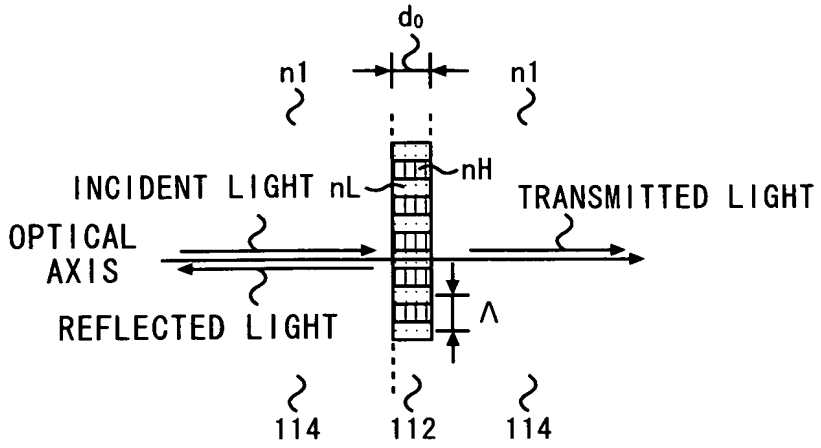
Fig. 4



▥:HIGH REFRACTIVE INDEX REGION 12a

▥:LOW REFRACTIVE INDEX REGION 12b

Fig. 3A



:HIGH REFRACTIVE INDEX REGION 12a
:LOW REFRACTIVE INDEX REGION 12b

Fig. 3B

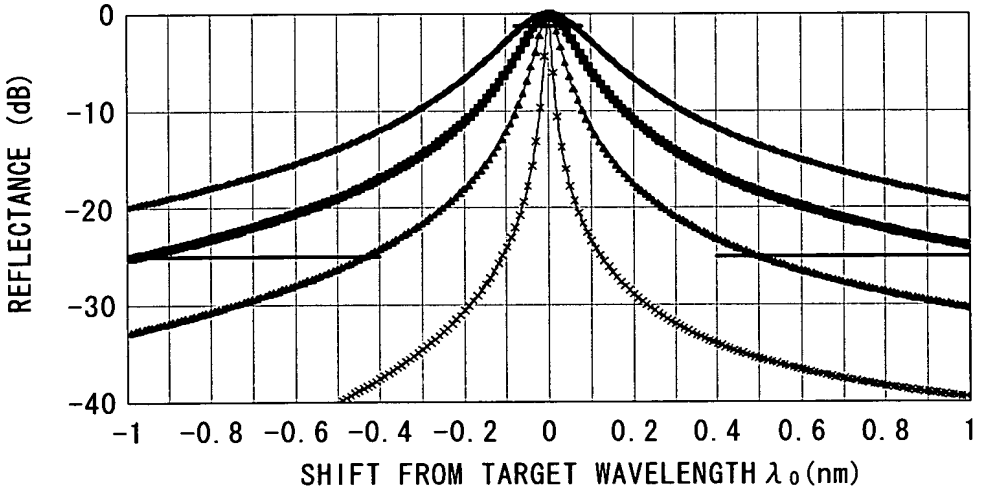
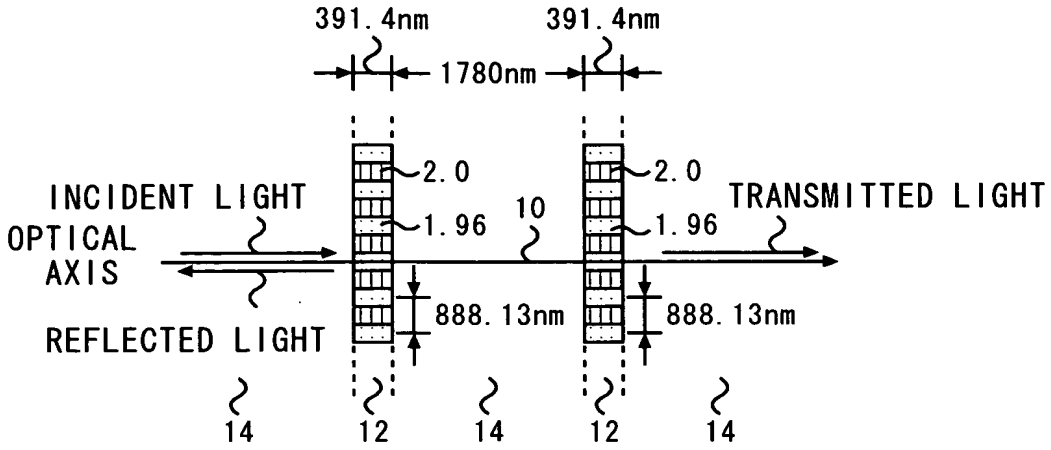


Fig. 5A



▥:HIGH REFRACTIVE INDEX REGION 12a

▥:LOW REFRACTIVE INDEX REGION 12b

λ_0:1550 μm

Fig. 5B

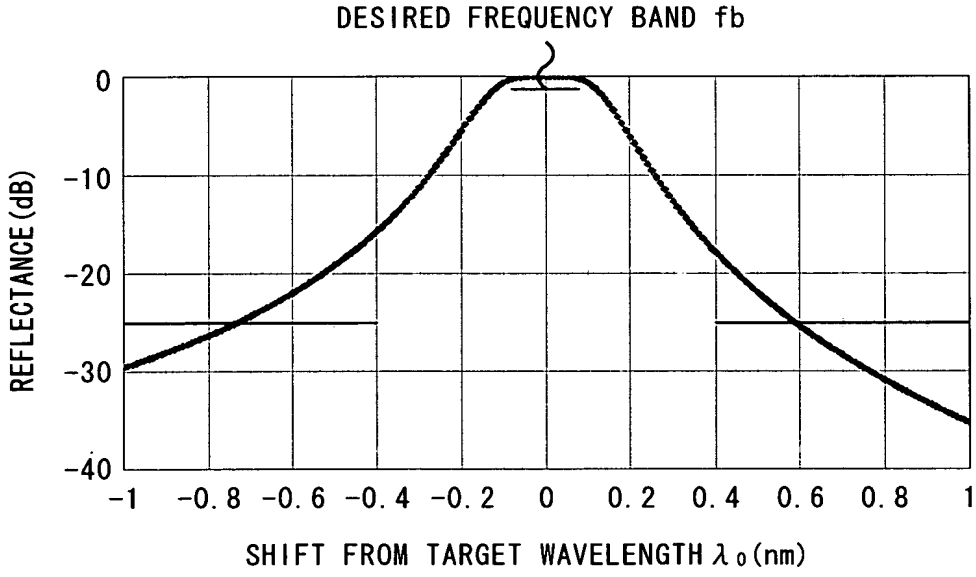


Fig. 6

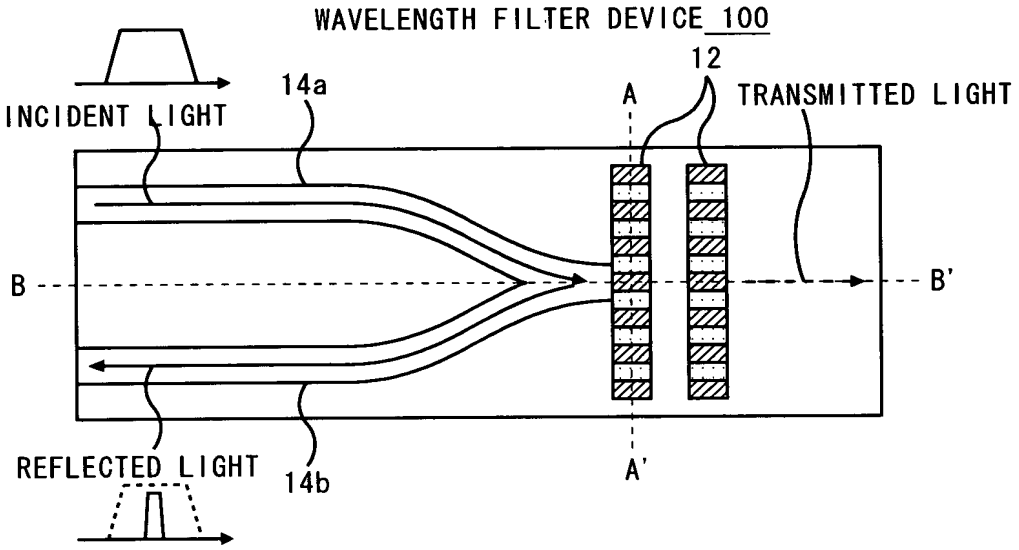

WAVELENGTH FILTER DEVICE 100
12
14a
A
TRANSMITTED LIGHT
INCIDENT LIGHT
B
B'
REFLECTED LIGHT
14b
A'

Fig. 7A

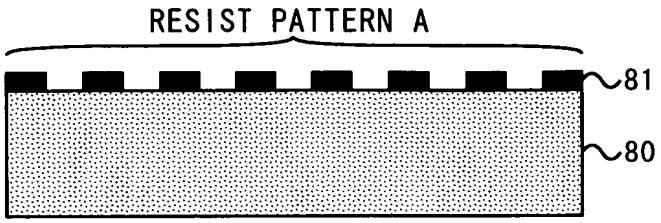


Fig. 7B

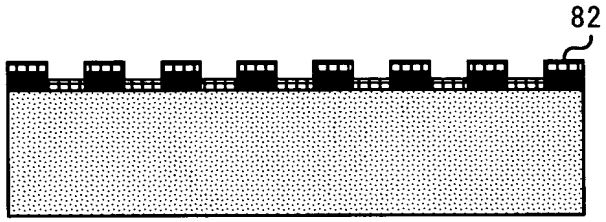


Fig. 7C

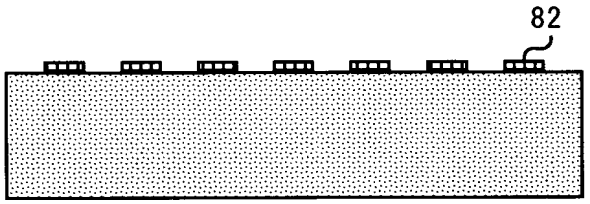


Fig. 7D

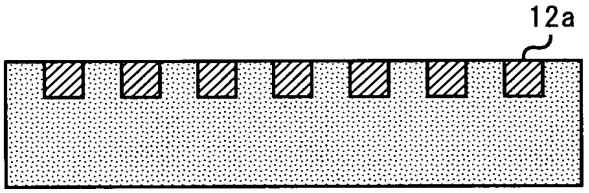


Fig. 7E

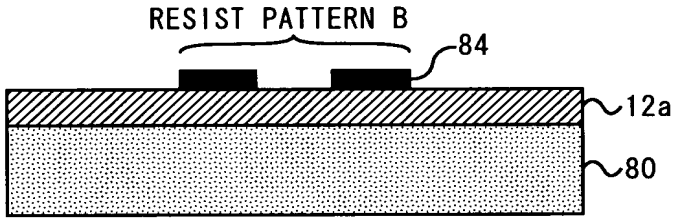


Fig. 8A

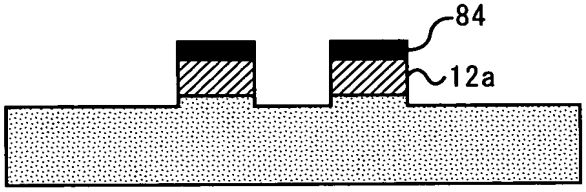


Fig. 8B

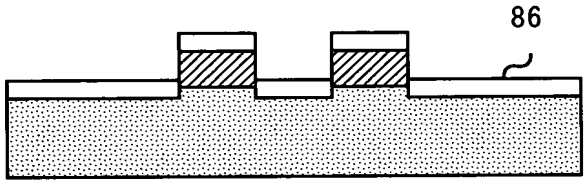


Fig. 8C

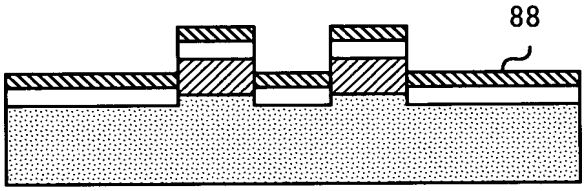


Fig. 8D

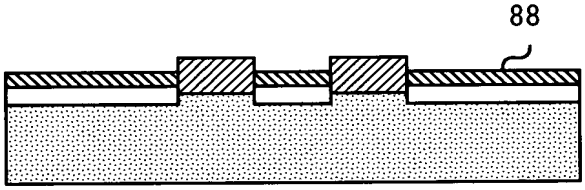


Fig. 8E

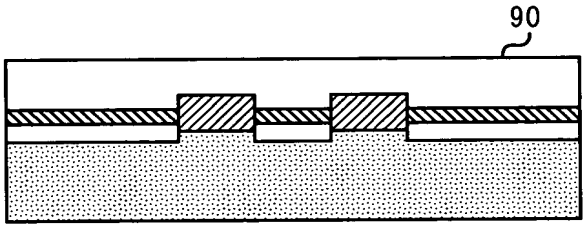


Fig. 9A

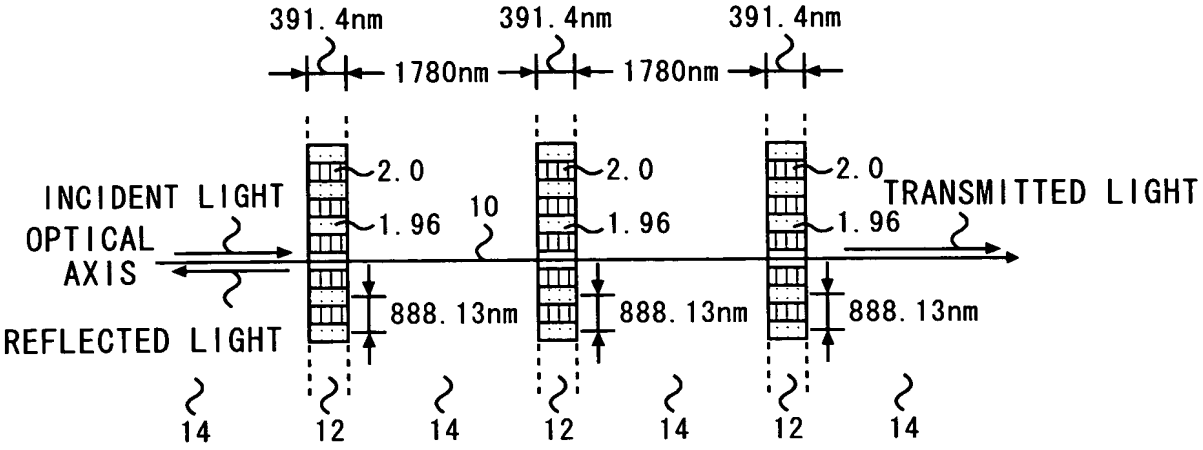

391.4nm
391.4nm
391.4nm
1780nm
1780nm
2.0
2.0
2.0
INCIDENT LIGHT
OPTICAL AXIS
1.96
10
1.96
1.96
TRANSMITTED LIGHT
REFLECTED LIGHT
888.13nm
888.13nm
888.13nm
14
12
14
12
14
12
14
:HIGH REFRACTIVE INDEX REGION 12a
:LOW REFRACTIVE INDEX REGION 12b
λ0:1550 μm

Fig. 9B

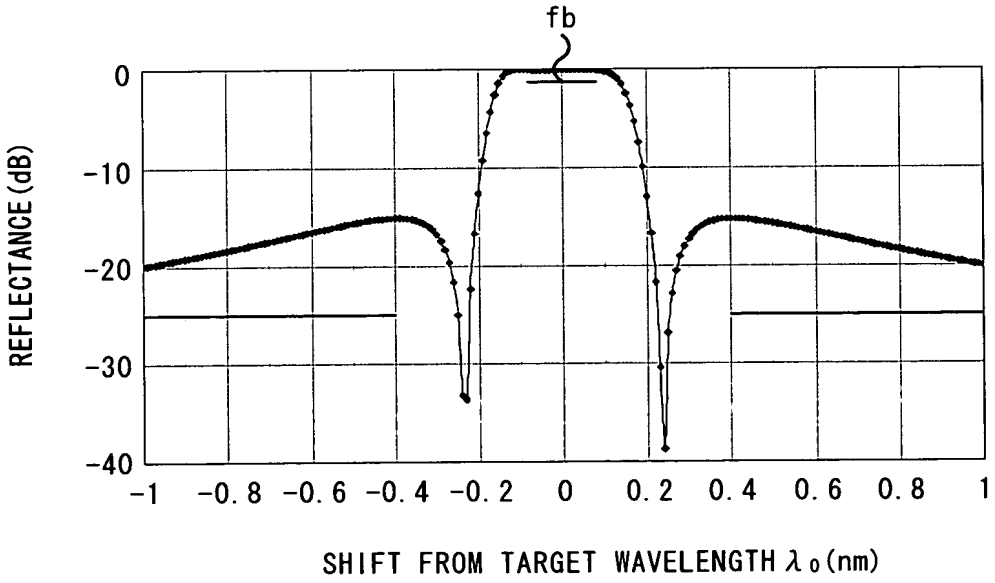

fb
0
-10
-20
-30
-40
REFLECTANCE (dB)
-1
-0.8
-0.6
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
SHIFT FROM TARGET WAVELENGTH λ0 (nm)

Fig. 10

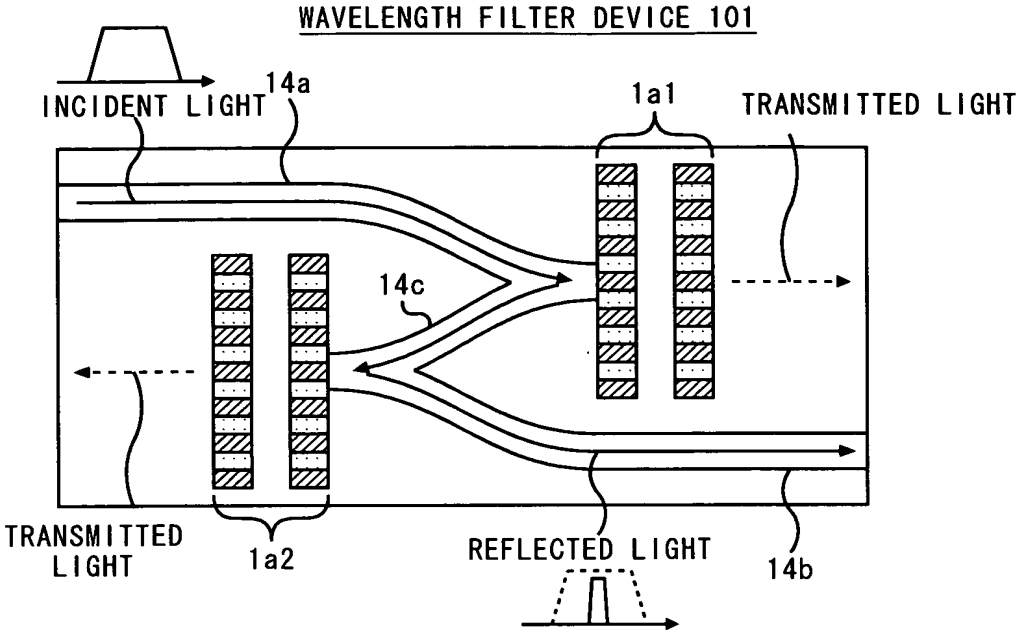
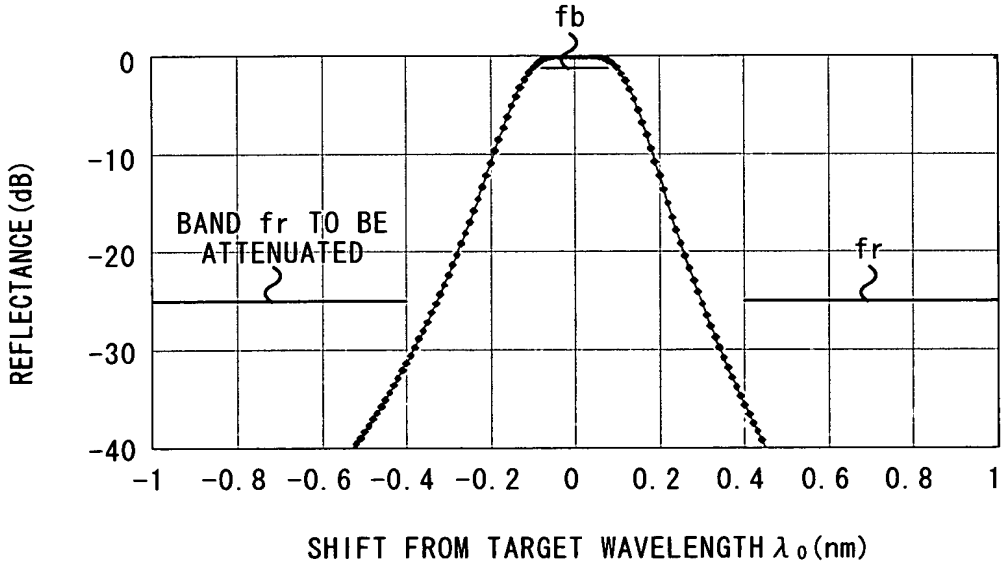

WAVELENGTH FILTER DEVICE 101
INCIDENT LIGHT
14a
1a1
TRANSMITTED LIGHT
14c
TRANSMITTED LIGHT
1a2
REFLECTED LIGHT
14b

Fig. 11


fb
0
-10
-20
-30
-40
BAND fr TO BE ATTENUATED
fr
REFLECTANCE (dB)
-1
-0.8
-0.6
-0.4
-0.2
0
0.2
0.4
0.6
0.8
1
SHIFT FROM TARGET WAVELENGTH λ0 (nm)

Title: WAVELENGTH FILTER, VARIABLE WAVELENGTH FILTER, AND OPTICAL DEVICE
Inventor's Name: ARITAKE
Application No.: NEW APPLICATION
Docket No.: 025720-00009

Fig. 12

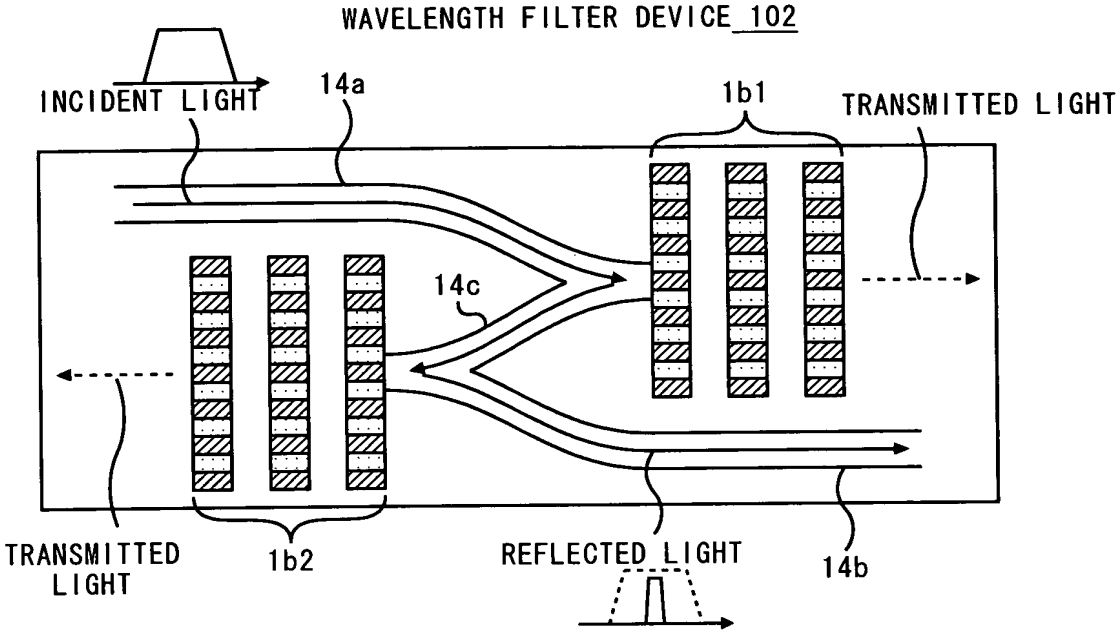


Fig. 13

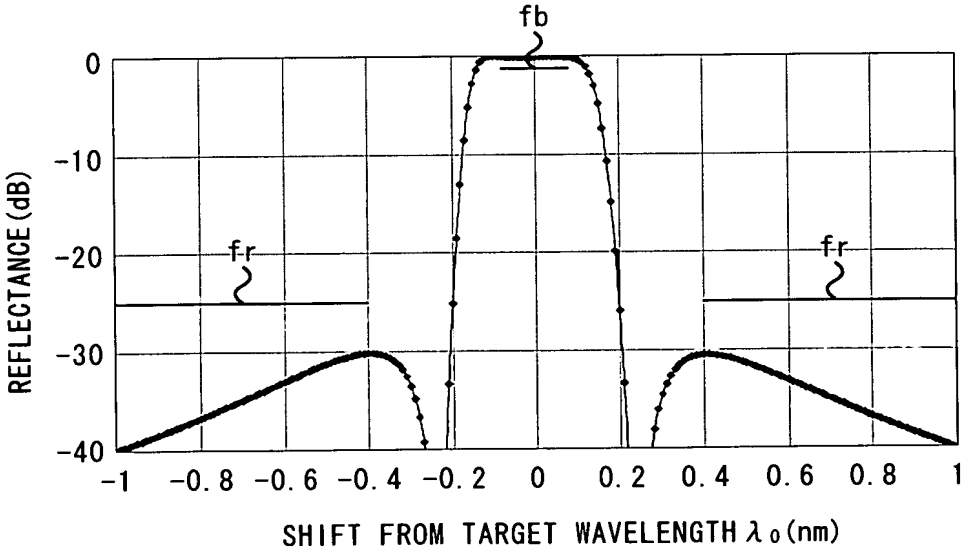


Fig. 14

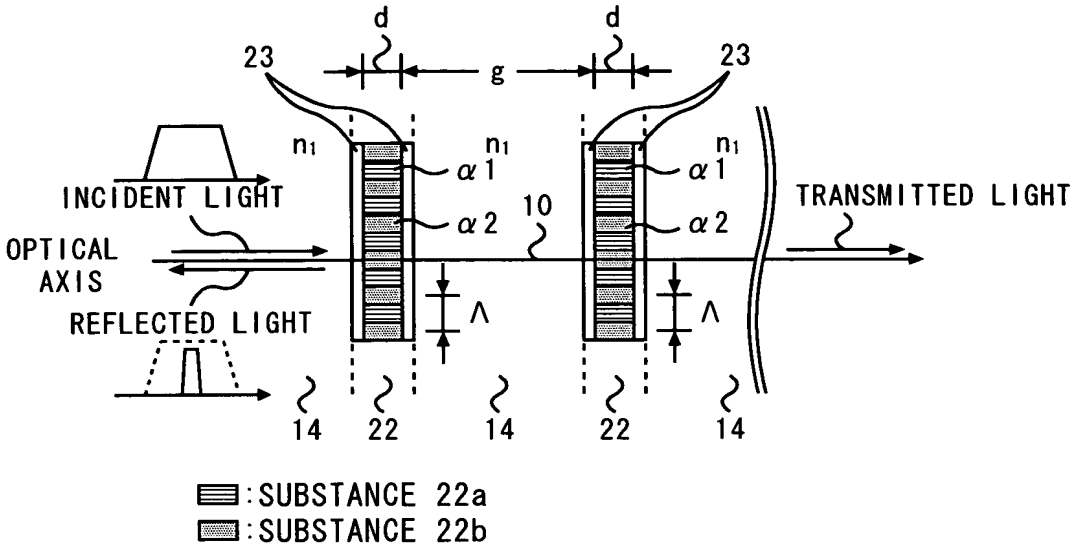

d
d
23
g
23
n1
n1
n1
α1
α1
INCIDENT LIGHT
α2
10
α2
TRANSMITTED LIGHT
OPTICAL AXIS
REFLECTED LIGHT
Λ
Λ
14
22
14
22
14
:SUBSTANCE 22a
:SUBSTANCE 22b

Fig. 15

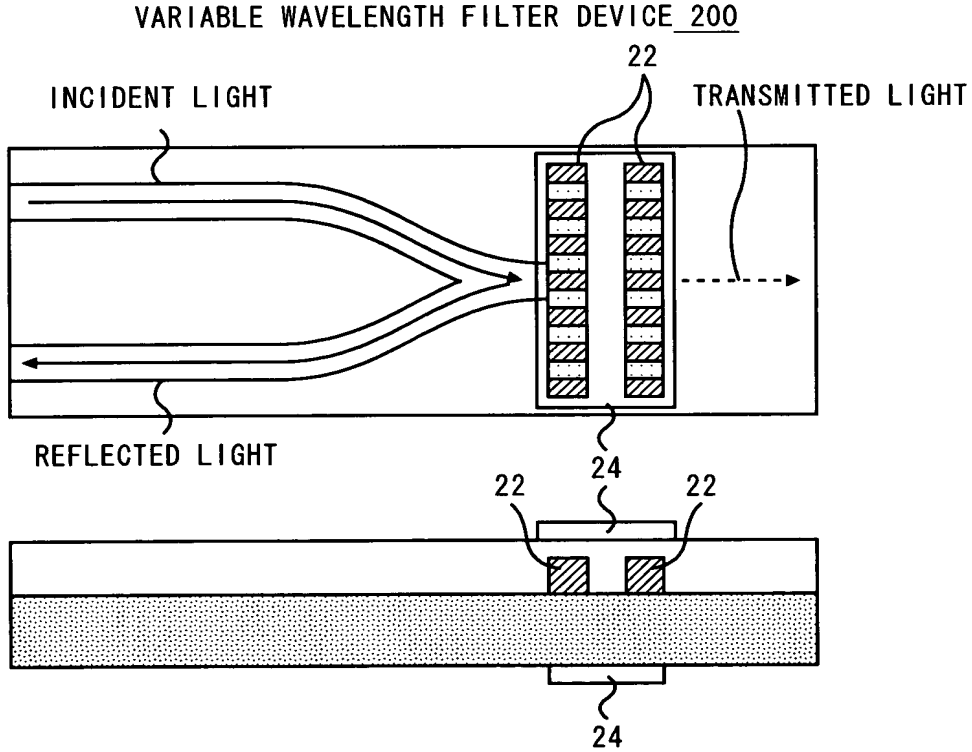

VARIABLE WAVELENGTH FILTER DEVICE 200
22
INCIDENT LIGHT
TRANSMITTED LIGHT
REFLECTED LIGHT
24
22
22
24

Fig. 16

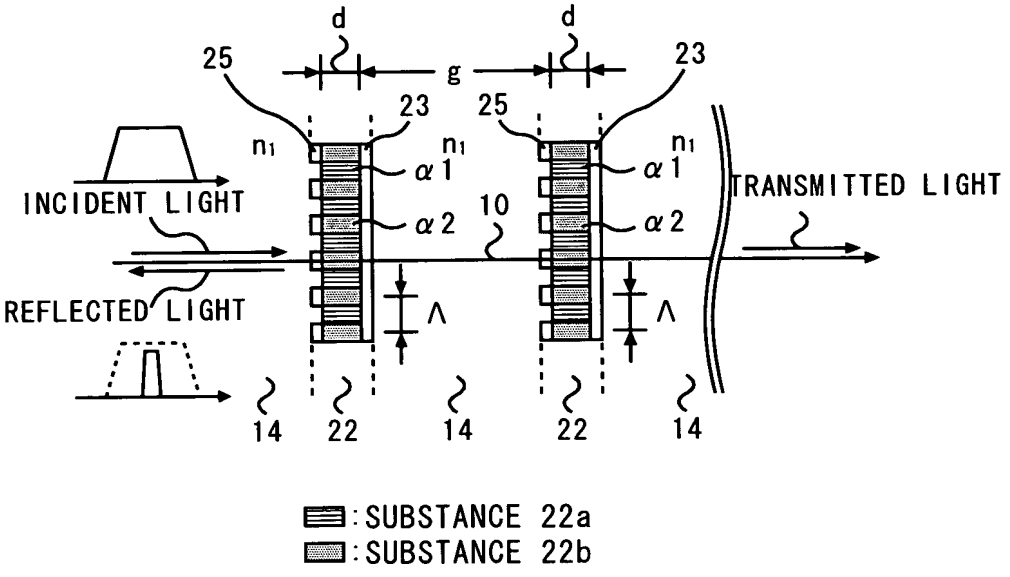
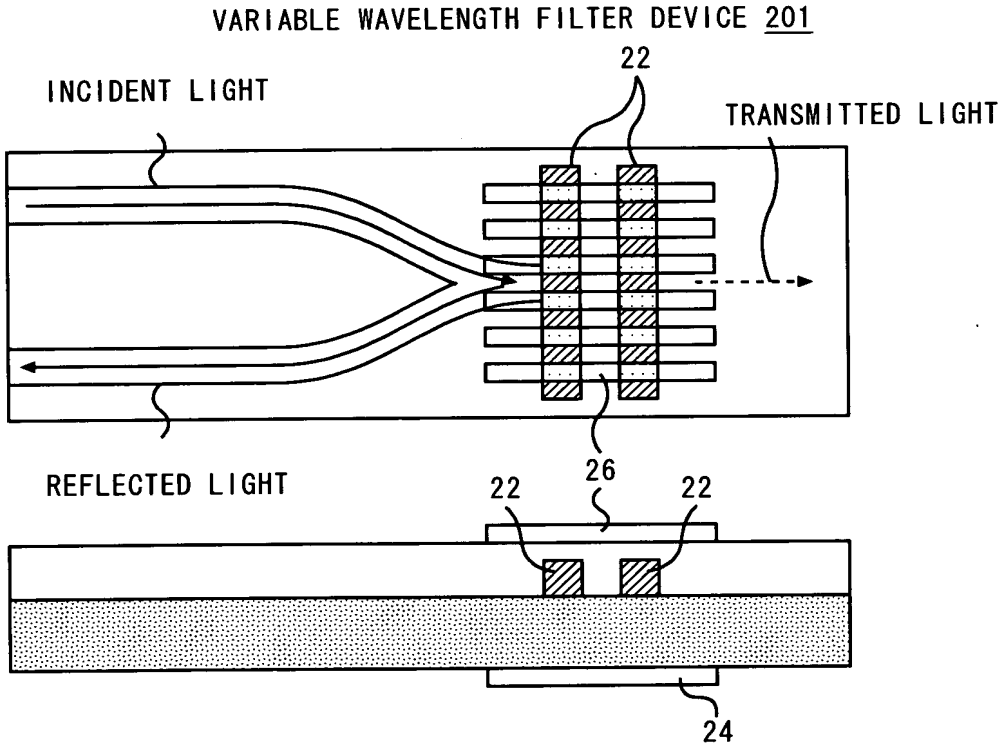

d
d
25
g
23
23
25
n1
n1
n1
α1
α1
INCIDENT LIGHT
10
α2
α2
TRANSMITTED LIGHT
REFLECTED LIGHT
Λ
Λ
14
22
14
22
14
: SUBSTANCE 22a
: SUBSTANCE 22b

Fig. 17


VARIABLE WAVELENGTH FILTER DEVICE 201
22
INCIDENT LIGHT
TRANSMITTED LIGHT
26
REFLECTED LIGHT
22
22
24